



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 1

5 Post Office Square, Suite 100
BOSTON, MA 02109-3912

By Electronic Mail and Hard Copy (Certified Mail - Return Receipt Requested)

MAR 02 2017

Janis O. Kearney
Director of Environmental Compliance
Assistant General Counsel I
Massachusetts Bay Transportation Authority (MBTA)
10 Park Plaza, Suite 6720
Boston, MA 02116

Re: Information Request Pursuant to Section 308 of the Clean Water Act for the NPDES Permit MA0003590 (MBTA Commuter Rail Maintenance Facility)

Dear Ms. Kearney,

The Region 1 office of the United States Environmental Protection Agency (EPA) is continuing work on the development of a draft National Pollutant Discharge Elimination System (NPDES) Permit, No. MA0003590, for the MBTA Commuter Rail Maintenance Facility (henceforth MBTA CRMF). MBTA and Keolis are identified as joint operators of the MBTA CRMF for the purposes of the NPDES permit. EPA is sending you, as the representative for MBTA and Keolis, this information request letter pursuant to Section 308(a) of the Clean Water Act (CWA), 33 U.S.C. 1318(a), because EPA requires additional information to support the development of the reissuance of the permit.

CWA §308(a) authorizes EPA to require the owner or operator of any point source to make reports and provide information as may reasonably be required to:

... carry out the objectives of ... [the CWA], including but not limited to:
(1) developing or assisting in the development of any effluent limitation, or other limitation, prohibition ... or standard of performance under [the CWA] ...; (2) determining whether any person is in violation of any such effluent limitation, or other limitation, prohibition or effluent standard, ... or standard of performance; (3) any requirement established under this section; or (4) carrying out section 1342... of [the CWA]

Based on information collected during two site visits to the MBTA CRMF in August and October 2016, correspondence with MBTA and Keolis and their employees and consultants before and after the site visits, and correspondence with the Massachusetts Water Resources

Authority regarding MBTA's sewer use permit #20102003, it is EPA's understanding that significant modifications to MBTA's drainage infrastructure have been made since NPDES permit MA0003590 was issued in 2007. Effluent discharged by MBTA to the Unnamed Tributary (Charles River segment MA72-31) under NPDES permit MA0003590 includes stormwater from the MBTA CRMF (including the T-Pad area), Somerville, Charlestown, property owned by DW NorthPoint, LLC, and property owned by MA Department of Conservation and Recreation, as well as up to 600 gallons per day of process wastewater from train washing operations at the CRMF. Contaminated groundwater from at least two known sources, one source from Somerville and one from a property nearby the Prison Point Oil Trap, may also infiltrate into the drainage infrastructure. Contaminated groundwater could commingle with stormwater and process water from the CRMF, introducing contaminants such as chlorinated volatile organic compounds and various oil constituents.

In order to further characterize pollutant sources given the significant changes in the drainage infrastructure of the facility, as well as to characterize the potential for commingled contaminated groundwater to impact the Unnamed Tributary via the surface water discharge, EPA is requesting information for pollutant monitoring at multiple locations and additional documentation with regards to drainage connections. Individual results from regular monitoring for NPDES permit MA0003590 may be substituted for the monitoring below as long as the individual samples are representative and satisfy both requirements. However, regular reporting to NetDMR must continue as required by the existing permit.

Information Collection

Within one hundred (100) days of receipt of this letter, provide to EPA in the form of a report the following:

1. Continuous flow measurements reported on no more than 15-minute intervals, starting as soon as possible, and collected from a flow metering device to be installed to measure flow to the Unnamed Tributary.
2. An up-to-date map and description of all relevant property ownership for the areas that contribute stormwater drainage to the discharge at Outfall 001, including all parcels where such drainage passes through or under. Contributing properties upgradient of the Old Stone Culvert need not be included. On the map clearly label drainage infrastructure and include the following locations where samples will be taken:
 - a. Prison Point Oil Trap
 - b. Each upstream connection to the Prison Point Oil Trap (e.g. NorthPoint)
 - c. DMH 13
 - d. Accessible opening of the Old Stone Culvert or DMH 13.1
 - e. DMH 13.4 (Outfall 001)

- f. Ambient location in the Unnamed Tributary downstream of the temporary oil containment booms and prior to confluence of the Unnamed Tributary with the Charles River

Approximate locations of DMH 13, DMH 13.1, DMH 13.4, the Prison Point Oil Trap, the accessible opening of the Old Stone Culvert, and ambient sampling are included in Attachment A.

3. A complete process diagram for the facility, showing all wastewater (including stormwater) flows contributing to Outfall 001, with the following locations clearly identified:
 - a. the three (3) oil/water separators at the CRMF
 - b. the monitoring locations described in #2a through #2f
 - c. key junction manholes
4. A description of the potential for groundwater infiltration at locations described in #2a through #2f.
5. A description of the potential of reverse directional flow, defined as flow away from Outfall 001, at each monitoring location described in #2a through #2f.
6. Depths of each monitoring location described in #2a through #2f relative to a single appropriate reference elevation, e.g. NGVD29.
7. Copies of legal agreements or, if not available, other information specifying dates for rerouting of non-MBTA CRMF flows to or away from the discharge to the Unnamed Tributary, e.g. NorthPoint.
8. An evaluation of Best Management Practices (BMPs) to reduce or eliminate pollutants that discharge to the Unnamed Tributary via Outfall 001, including the following practices:
 - a. the diversion of "dragout" water, or process water not covered by sewer use permit #2010200, to the sewer
 - b. prevention or reduction of commingling of contaminated groundwater with other flows discharging to the Unnamed Tributary
 - c. enhanced operation and maintenance of the three (3) oil/water separators at the CRMF
 - d. collection system cleaning and maintenance
 - e. catchbasin or pipe lining
 - f. pipe replacement
 - g. camera investigations
9. Results from at least five (5) sampling events. Within a single sampling event, samples must be taken no more than six (6) hours apart at each location in #2a through #2f. Sampling events at all locations in #2a through #2f shall be conducted on the same day at

approximately the same time, every two weeks, and until 5 samples at each location are collected. The intent is for both dry and wet weather flow to be characterized, and therefore a report of "no flow" is not a substitute for a sample. If field conditions do not allow for sampling (e.g. there is no flow), conditions must be explained in detail and recorded for the applicable report. The Prison Point Oil Trap must be sampled between chambers 1 and 4 and DMH 13.4 must be sampled from the downstream hatch. Samples shall be analyzed for the priority pollutants in Attachment B of this letter, *and* pH, total suspended solids (TSS), total petroleum hydrocarbons (TPH), oil & grease, total phosphorus, *E. Coli*, and hexavalent chromium.

10. Results from at least three (3) Whole Effluent Toxicity (WET) test suites and associated analytical chemistry for

- a. DMH 13.4, and
- b. an ambient location.

The ambient location is defined in #2f and shown in Attachment A. Both acute and chronic WET tests¹ shall be performed for each freshwater species *Ceriodaphnia dubia* and *Pimephales promelas* as part of each WET test suite. Please note that modified acute toxicity tests are no longer accepted as a substitute for chronic tests. Each WET sample shall be collected during a sampling event, where a sampling event is defined in #9. However, WET samples shall be collected during sampling events at least 28 days apart.

11. Results from three (3) effluent samples for each of the three (3) oil/water separators on-site at the CRMF. Samples shall be collected and analyzed for oil & grease, total petroleum hydrocarbons (TPH), and benzene. Each oil/water separator sample shall be collected as part of a sampling event. However, oil/water separator effluent samples for each oil/water separator location shall be collected during sampling events at least 28 days apart.

12. Results for three (3) representative samples of "dragout" water. Samples shall be collected and analyzed for total suspended solids (TSS), oil & grease, phenol, total phthalates, acrolein, benzene, zinc, lead, mercury, cadmium and hexavalent chromium. The rationale for samples being deemed representative of "dragout" water shall also be recorded and included with reported results. If "dragout" water is indeed representative of train wash process water, "dragout" water samples must be collected while trains are being washed.

¹ Whole Effluent Toxicity freshwater acute and chronic toxicity protocols may be found at: https://www3.epa.gov/region1/npdes/epa_attach.html#epa

Additional Reporting Instructions

1. Approximate sampling locations of DMH 13, DMH 13.1, DMH 13.4, the Prison Point Oil Trap, the accessible opening of the Old Stone Culvert, and ambient sampling are included in Attachment A as guidance.
2. Flow results and laboratory chemistry results for monitoring requirements #9 through #12, inclusive, shall be clearly identified by sampling event, location, and individual pollutant parameter, and provided to EPA in an Excel readable format, e.g. files with a .xlsx or .csv file. Complete laboratory-issued reports for the monitoring requirements in this letter, including Whole Effluent Toxicity test reports, must be available upon request by EPA and MassDEP.
3. All sample timestamps and unique sampling coordinates (latitude and longitude) with standard metadata (the projection and coordinate system of reported coordinates) must be defined/recorded and reported along with the appropriate sampling results. Timestamps of samples must be accurate to the nearest 15-minute interval and sampling coordinates must be accurate to the closest foot.
4. Hourly rainfall depth for the 24-hour period preceding sampling events and any conditions that resulted in sufficient or insufficient flow for sampling shall be reported and supplied with appropriate sampling results at each location.
5. Sampling under this request may be conducted using the grab method unless 40 CFR §136 methods specify otherwise. All samples shall be tested using the analytical methods found in 40 CFR §136, or alternative methods approved by EPA in accordance with the procedures in 40 CFR §136. Please note that analytical methods used for this monitoring request must be sufficiently sensitive. More details on sufficiently sensitive methods are available at <https://www3.epa.gov/region1/npdes/remediation/2016AppendixVII.pdf> and <https://www.epa.gov/sites/production/files/2015-09/documents/public-fact-sheet-sufficiently-sensitive-methods-rule-8-18-14-final.pdf>. All samples shall be tested in accordance with the procedures in 40 CFR Part 136, unless specified otherwise.
6. Please contact Undine Kipka at kipka.undine@epa.gov to transmit files electronically. If individual electronic files are larger than 25 MB, please also contact Undine Kipka to make other alternate file transmittal arrangements.

Information in a report submitted pursuant to this request shall be sent by certified mail and shall be addressed as follows:

Undine Kipka, Industrial Permits Section
U.S. EPA Region 1
5 Post Office Square - Suite 100 - Mail code OEP 06-01
Boston, MA 02109-3912

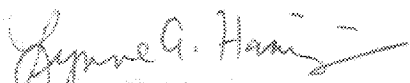
Cathy Vakalopoulos, MassDEP
Bureau of Water Resources
Wastewater Management Program
1 Winter Street, 5th Floor
Boston, MA 02108

Failure to comply with this information request could, depending on the circumstances, subject MBTA and Keolis, as joint operators of the MBTA CRMF for the purposes of the NPDES permit MA0003590, to civil or criminal enforcement action pursuant to Section 309 of the CWA, 33 USC §1319. The discharge of water from any previously unknown or undocumented source to any NPDES-permitted outfall on-site is prohibited until sampling results are received and EPA makes a determination regarding whether such water may be discharged to any existing outfalls with or without certain conditions.

MBTA and Keolis may assert a business confidentiality claim with respect to part or all of the information submitted to EPA in the manner described at 40 CFR 2.203(b). Information covered by such a claim will be disclosed by EPA only to the extent, and by means of the procedures, set forth in 40 CFR Part 2, Subpart B. If no such claim accompanies the information when it is submitted to EPA, it may be made available to the public by EPA without further notice to MBTA and Keolis.

EPA looks forward to working with you on this request and your reissued permit. If you have any questions concerning the required information requested above, please contact Undine Kipka of my staff at kipka.undine@epa.gov or (617) 918-1335.

Sincerely,


Ken Moraff, Director *for*
Office of Ecosystem Protection
USEPA Region I - New England

cc (by electronic copy):

Undine Kipka, EPA
Cathy Vakalopoulos, MassDEP
Joe Nerden, MassDEP
Bill Betters, CDW Consultants
Clary Coutu, Keolis

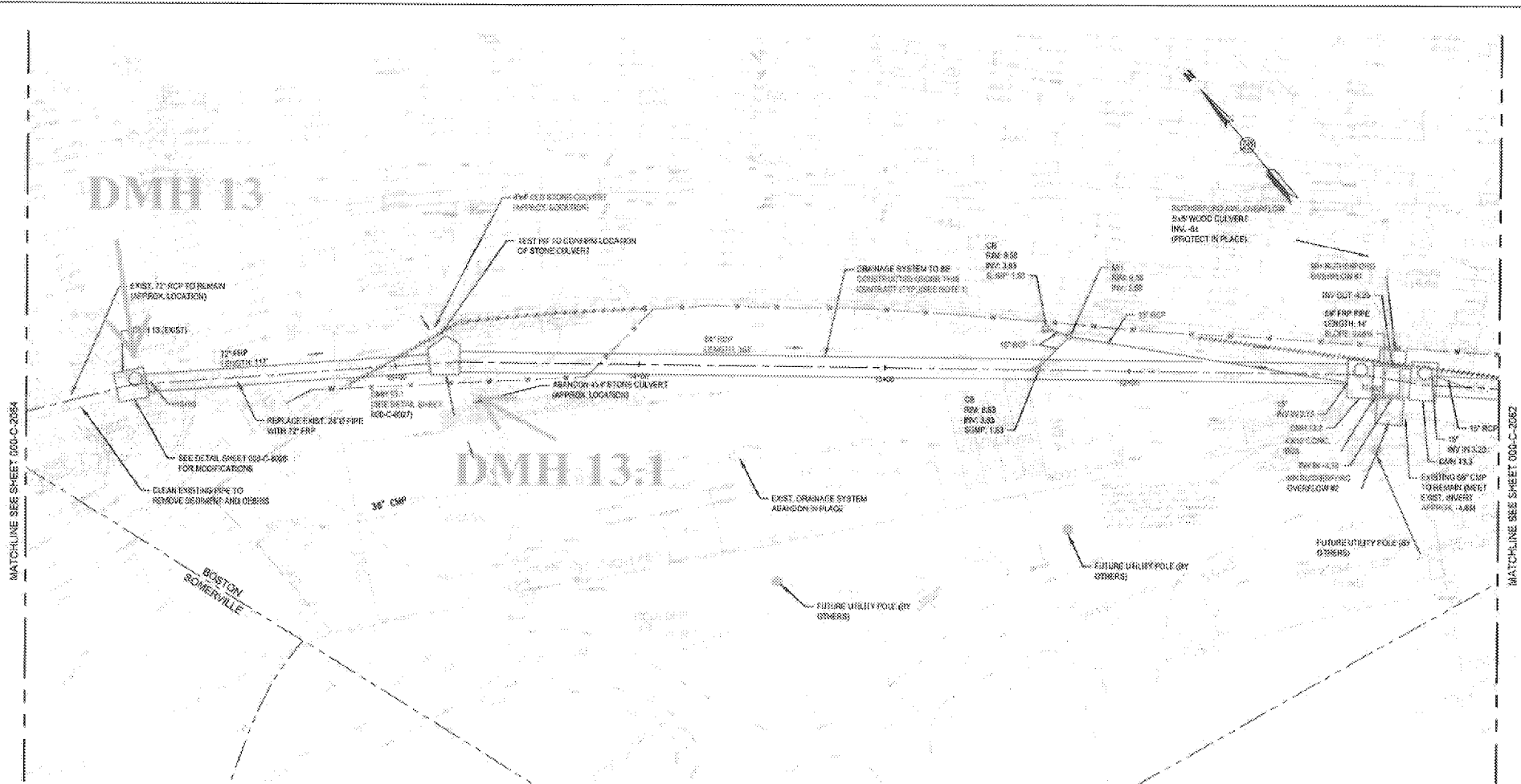
Attachment A: Approximate locations of DMH 13, DMH 13.1, DMH 13.4, the Prison Point Oil Trap, the accessible opening of the Old Stone Culvert, and ambient sampling

Attachment B: Pollutant monitoring list

Attachment A: Approximate locations of DMH 13, DMH 13.1, DMH 13.4, the Prison Point Oil Trap, the accessible opening of the Old Stone Culvert, and ambient sampling

DMH 13

DMH 13:1

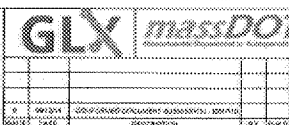


NOTES:

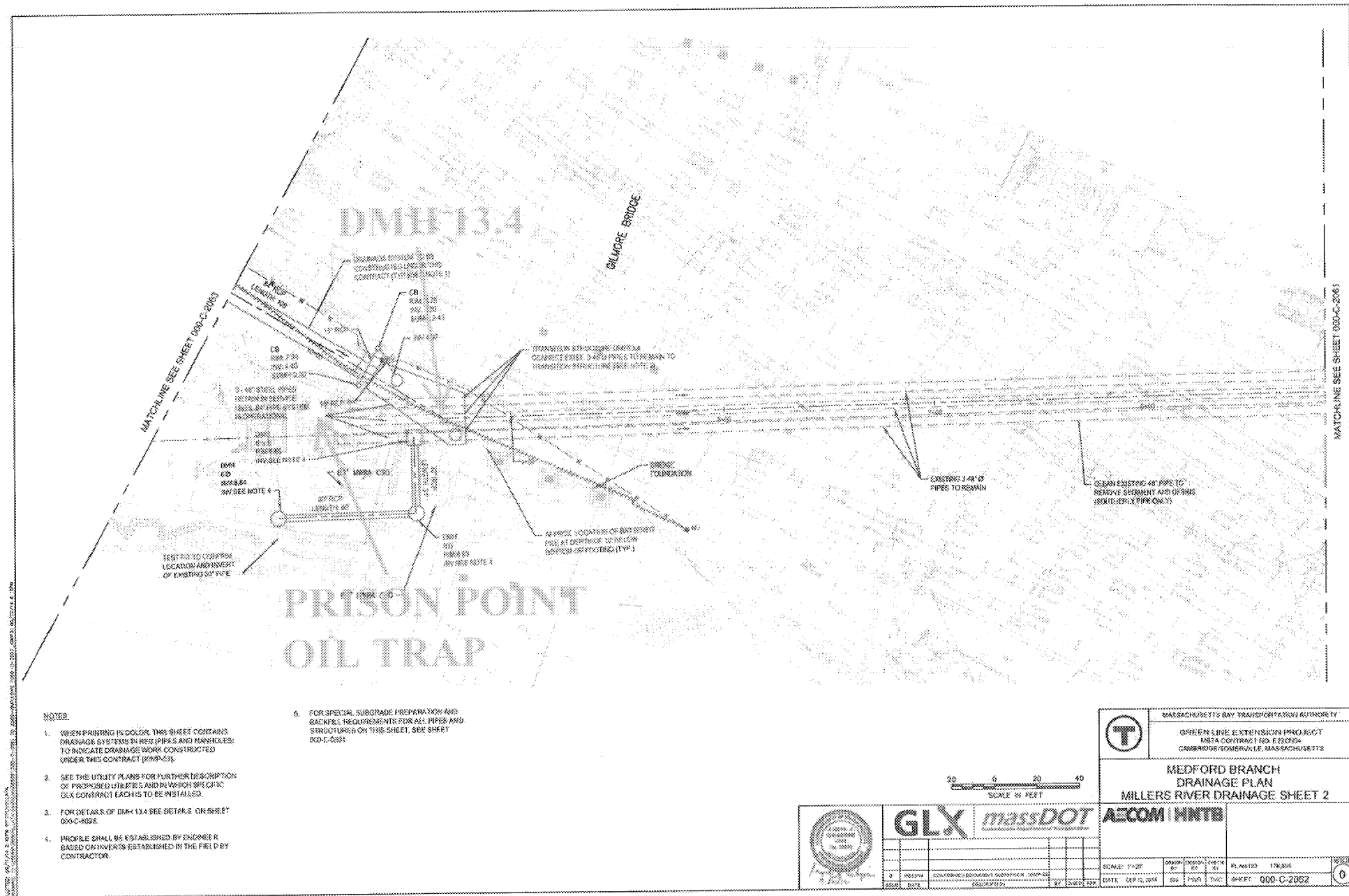
1. WHEN PRINTING IN COLOR, THIS SHEET CONTAINS DRAINAGE SYSTEMS IN RED (PIPS AND MANHOLES) TO INDICATE DRAINAGE WORK CONSTRUCTED UNDER THIS CONTRACT (000-C-2084).
2. SEE THE UTILITY PLANS FOR FURTHER DESCRIPTION OF PROPOSED UTILITIES AND IN WHICH SPECIFIC GLX CONTRACT EACH IS TO BE INSTALLED.
3. FOR RUTHERFORD AVENUE OVERFLOW MANHOLE NO. 1 AND NO. 2 DETAILS, SEE SHEET 000-C-2085.
4. SEE DETAILS SHEET 000-C-2082 FOR DMH 13.2 AND DMH 13.3.
5. ALL EXISTING PIPES CONNECTED TO DMH 13 SHALL REMAIN IN SERVICE, EXCEPT THE 24\"/>

7. FOR SPECIAL SUBGRADE PREPARATION AND BACKFILL REQUIREMENTS FOR ALL PIPES AND STRUCTURES ON THIS SHEET, SEE SHEET 000-C-2081.

SCALE: 1\"/>

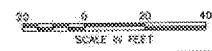


	MASSACHUSETTS BAY TRANSPORTATION AUTHORITY				
	GREEN LINE EXTENSION PROJECT 3081A CONTRACT NO. 8220004 CAMBRIDGE/SOMERVILLE, MASSACHUSETTS				
MEDFORD BRANCH DRAINAGE PLAN MILLERS RIVER DRAINAGE SHEET 3					
AECOM HNTB					
SCALE: 1"=20'	DATE: SEP 2, 2009	DESIGNED BY: J. P. HARRIS	CHECKED BY: J. P. HARRIS	PLANNED BY: J. P. HARRIS	578.505
SHEET: 3081A-2009					000-C-2003
					9



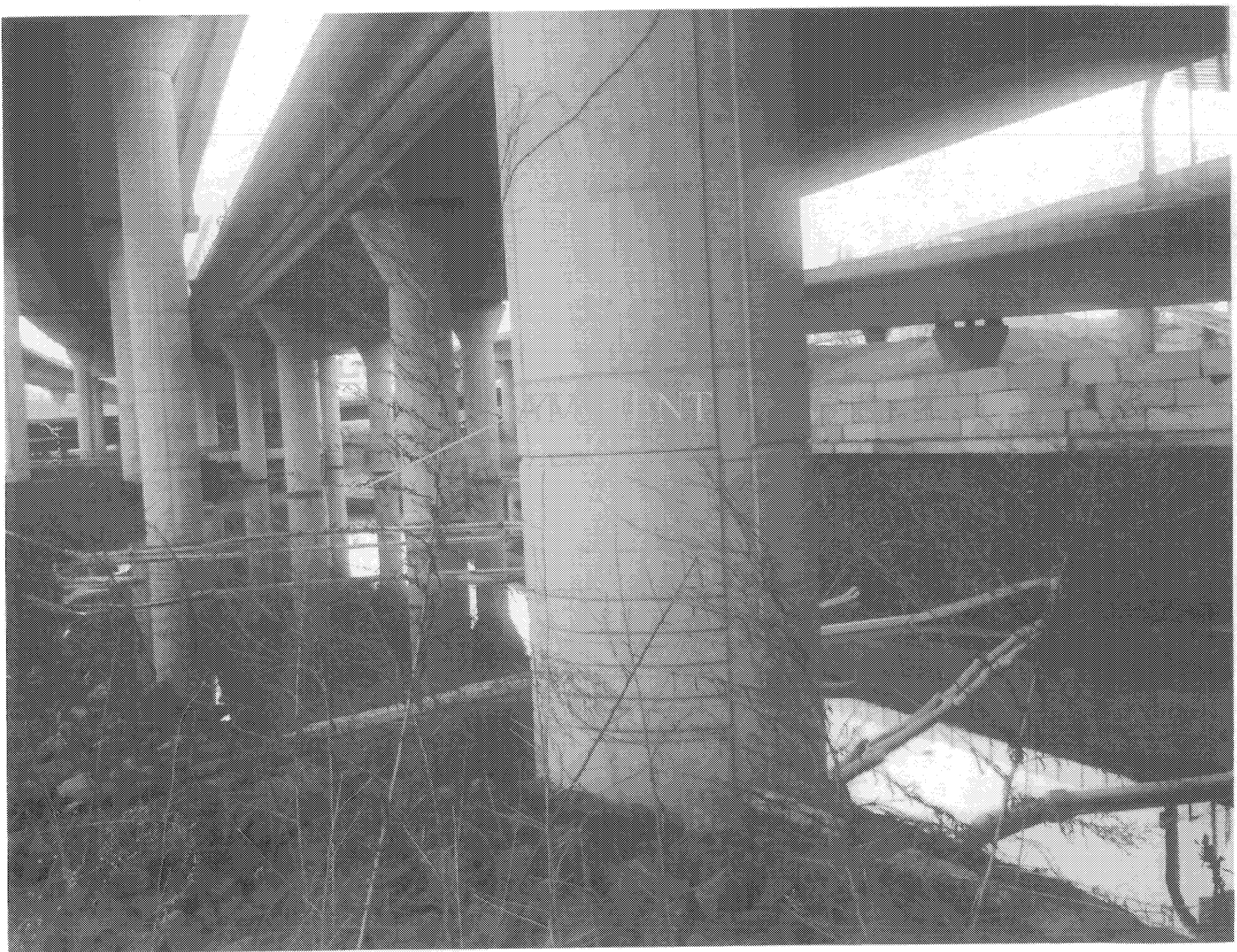
- NOTES:
1. WHEN PRINTING IN COLOR, THIS SHEET CONTAINS DRAINAGE SYSTEMS IN RED (PIPES AND MANHOLES) TO INDICATE DRAINAGE WORK CONSTRUCTED UNDER THIS CONTRACT (CONP-03).
 2. SEE THE UTILITY PLANS FOR FURTHER DESCRIPTION OF PROPOSED UTILITIES AND REQUIRED SPECIFIC GLX CONTRACT EACHES TO BE INSTALLED.
 3. FOR DETAILS OF DMH 13.4 SEE DETAILS ON SHEET 000-C-0002.
 4. PROFILE SHALL BE ESTABLISHED BY ENGINEER BASED ON INVERTS ESTABLISHED IN THE FIELD BY CONTRACTOR.

5. FOR SPECIAL SUBGRADE PREPARATION AND BACKFILL REQUIREMENTS FOR ALL PIPES AND STRUCTURES ON THIS SHEET, SEE SHEET 000-C-0001.



	GLX <i>massDOT</i>		AZCOM HNTB	
	MEDFORD BRANCH DRAINAGE PLAN MILLERS RIVER DRAINAGE SHEET 2			
SCALE: 1"=20' DATE: SEP 12, 2014		DRAWN BY: [blank] CHECKED BY: [blank]		SHEET: 000-C-0002





Attachment B: Pollutant monitoring list

Pollutant	Priority Pollutant List Number*	CAS
Acenaphthene	1	83-32-9
Acrolein	2	107-02-8
Benzene	4	71-43-2
Carbon tetrachloride	6	56-23-5
1,2-dichloroethane	10	107-06-2
1,1,1-trichloroethane	11	71-55-6
1,1-dichloroethane	13	75-34-3
1,1,2-trichloroethane	14	79-00-5
1,2-dichlorobenzene	25	95-50-1
1,3-dichlorobenzene	26	541-73-1
1,4-dichlorobenzene	27	106-46-7
1,1-dichloroethylene	29	75-35-4
Ethylbenzene	38	100-41-4
Fluoranthene	39	206-44-0
Methylene chloride	44	75-09-2
Naphthalene	55	91-20-3
Pentachlorophenol	64	87-86-5
Phenol	65	108-95-2
Bis(2-ethylhexyl)phthalate	66	117-81-7
Butylbenzylphthalate	67	85-68-7
Di-n-butylphthalate	68	84-74-2
Di-n-octylphthalate	69	117-84-0
Diethylphthalate	70	84-66-2
Dimethylphthalate	71	131-11-3
Benzo(a)anthracene	72	56-55-3
Benzo(a)pyrene	73	50-32-8
Benzo(b)fluoranthene	74	205-99-2
Benzo(k)fluoranthene	75	207-08-9

Pollutant	Priority Pollutant List Number*	CAS
Chrysene	76	218-01-9
Acenaphthylene	77	208-96-8
Anthracene	78	120-12-7
Benzo(ghi)perylene	79	191-24-2
Fluorene	80	86-73-7
Phenanthrene	81	85-01-8
Dibenzo(a,h)anthracene	82	53-70-3
Indeno(1,2,3-cd)pyrene	83	193-39-5
Pyrene	84	129-00-0
Tetrachloroethylene	85	127-18-4
Toluene	86	108-88-3
Trichloroethylene	87	79-01-6
Vinyl chloride	88	75-01-4
Arsenic	115	7440-38-2
Cadmium	118	7440-43-9
Chromium	119	7440-47-3
Copper	120	7440-50-8
Cyanide	121	57-12-5
Lead	122	7439-92-1
Mercury	123	7439-97-6
Nickel	124	7440-02-0
Zinc	128	7440-66-6

*All 126 priority pollutants can be found at: <https://www.epa.gov/sites/production/files/2015-09/documents/priority-pollutant-list-epa.pdf>